

**Amendments to the Claims:**

Please replace all prior versions of the claims under examination with the following:

Claims 1-47 previously cancelled

48. (amended herein) A method of diagnosing breast cancer in a patient, the method comprising:

(i) obtaining a biological sample comprising breast tissue from a patient; and

(ii) detecting the level of a polynucleotide encoding a BCH1 polypeptide in the sample, wherein the polynucleotide is an mRNA at least 75% 95% identical to the nucleic acid sequence disclosed in SEQ ID NO:23, and wherein an increase in the level of the polynucleotide relative to normal breast tissue is indicative of cancer.

49. (amended herein) The method of claim 48, wherein the polynucleotide is at least 95% identical to SEQ ID NO:23 encodes the amino acid sequence of SEQ ID NO:25.

50. (cancelled herein)

51. (cancelled herein)

52. (amended herein) The method of claim 48, wherein the method further comprises isolating nucleic acids from the sample comprises isolated nucleic acids.

53. (cancelled herein)

54. (as filed) The method of claim 48, wherein the polynucleotide is SEQ ID NO:23.

55. (amended herein) The method of claim 48, wherein the detecting step comprises hybridizing a labeled probe to the polynucleotide is labeled.

56. (amended herein) The method of claim 55, wherein the probe is labeled with label is a fluorescent label.

57. (amended herein) The method of claim 48, wherein the detecting step comprises hybridizing the polynucleotide to a probe that is immobilized on a solid surface.

58. (amended herein) The method of claim 48, wherein the detection detecting step comprises contacting the sample with a biochip, wherein the biochip comprises the nucleic acid sequence disclosed in SEQ ID NO:23.